

brown mingled with yellowish brown; white, iridescent, scale-like hairs are distributed over its surface, and a spot composed of dense white hairs occurs immediately above the spinners.

The spider from which the foregoing description was made is preserved in Canada balsam, and has suffered from compression; consequently, my account of it is not so complete as it would have been could I have examined it more perfectly. After a most careful and prolonged inspection under the microscope I could not ascertain that it had more than six eyes, which are arranged in the order stated above; but even should it ultimately be found to possess eight of those organs, it must still, by its other essential characters, constitute a new genus.

I feel sincere pleasure in dedicating this remarkable species to Francis Walker, Esq., F.L.S., a distinguished naturalist, well-known to the entomological readers of the 'Annals and Magazine of Natural History' by his valuable papers on *Aphides*; and I gladly avail myself of this opportunity to express my thanks to Mr. Walker for his liberality in permitting me to publish descriptions of any *Araneidea* contained in his cabinet which I suspected to be unknown to arachnologists.

Schaenobates Walkeri was taken at Broadstairs in Kent in the month of September, and is in Mr. Walker's collection of *Arachnida*.

XXX.—*Descriptions of a new genus and six new species of Saurian Reptiles.* By P. H. GOSSE, A.L.S.

Family IGUANADÆ.

1. *Anolis iodurus*. The Purple-tailed Anolis. Crest on the nape prominent: ventral scales smooth, roundish; those of the back small, many-sided, keeled; those of the sides granular: tail rather compressed, slightly crested. ♂. Length of body 2 inches; of tail 3 inches; total 5 inches. Glaucous green, marked with irregular waved lines of a darker shade; upper surface of the head marked with pale dots, confluent: sides yellow-green, sometimes brassy: basal portion of the tail brilliant light purple; the terminal two-thirds pale brown: under parts of the body and limbs pale glaucous: goitre bright orange.

The colour changes under the excitement of fear or anger to sooty brown, usually paler on the part which before was purple; the legs appear banded with transverse pale lines: under parts brownish gray, obscurely spotted with brown.

Sometimes the general colour is a chaste gray, tinged with reddish violet on the neck and shoulders; the purple of the tail bright.

The brown hue increases in intensity, I believe with anger, and sometimes extends over the belly, paled along the mesial line; at other times the belly retains the ordinary glaucous hue. The goitre is not susceptible of any change of colour.

♀. Length of body $1\frac{1}{2}$ inch; of tail $2\frac{1}{4}$ inches; total $3\frac{3}{4}$ inches. Upper parts wood-brown, crossed by three broad transverse bands of black, the first in the middle of the trunk, the third immediately over the thighs, the second intermediate; each band is edged anteriorly and posteriorly with white, and a narrow white line runs along the mesial line of the loins, dividing the second and third band: tail crossed by four or five pale lozenge-shaped marks; outer surface of limbs crossed by several darker transverse bands. Under parts both of body and limbs yellowish white.

The females in this genus seem to have the faculty of changing their colour in much less perfection than the male; and I have reason to believe that the power of stretching the goitre is very little, *if at all*, possessed by this sex.

Hab. Jamaica. Very common about houses in the lowlands. Specimens in Brit. Mus.

The trivial name is formed from *ιώδης*, violet-coloured, and *οὐρά*, the tail.

In spirits this resembles *A. punctatus*, a Brazilian species, but differs from it in the tail being much longer, more slender, and more compressed; and in the white dots on the head being much more obscure, and more confluent.

2. *Anolis opalinus*. The Pearly-bellied Anolis. Nuchal crest inconspicuous: tail roundish, slightly compressed; indistinctly crested; strongly keeled beneath, the keels forming about six continuous ridges. ♂. Length about the same as that of *A. iodurus*. Drab, or pale wood-brown, thickly studded with dark brown spots, irregularly confluent, so as to form a rude netted pattern; the mesial line of the back is slightly paler than the ground colour, and, being crossed by undefined bands of dark brown, displays a series of pale areas along the dorsal surface; the alternate pale and dark bands are most conspicuous and most regular on the tail. A stripe of dark brown, still reticulated, proceeds from the muzzle through the eye, and along the side to the thigh, where it is lost; below it runs a pale stripe parallel to it. The external surface of the limbs is reticulated and banded like the body. The under parts pale yellowish, speckled at the sides with brown. The scales of the belly are iridescent in both this and the preceding species, but chiefly in this, the belly of which, when the angle formed by the incident ray and the reflected one is very wide, glows with a ruddy golden hue, exceedingly beautiful and opaline.

Its change is to a nearly uniform brownish black, in which the markings are but just distinguishable by a slight difference of shade; sometimes, however, the whitish areas of the back are more than usually conspicuous, especially one upon the rump of a hastate form.

Hab. Jamaica. In the same situations as the preceding species. Very common. Specimens in Brit. Mus.

3. *Draconura catenata*. The Chain-marked Anolis. Three or four series of keeled scales run down the back, slightly larger than those of the sides, but diminishing gradually towards them. Muzzle clothed with irregular, subequal, polygonal scales, two- or three-keeled. Ears linear, perpendicular. Tail slightly compressed. ♂. Length of body $1\frac{8}{10}$ inch; of tail 3 inches; total $4\frac{8}{10}$ inches. Pale dusky or drab, divided by two paler bands running down each side and one down the middle of the back. Along the dark band on each side of the mesial line, a series of irregular-oval spots of blackish hue runs from the shoulders to the extremity of the tail; a band of the same hue passes diagonally from a point between the eye and ear, meeting at the nape. Legs and upper parts tinged with fawn colour; thighs and legs obscurely banded with black. Lips mottled with blackish. Goitre rich crimson. Under parts whitish with an opaline lustre.

Its change is from a state in which the hue is pale, and the spots only just visible, to a much darker hue, the spots nearly black, the sides and belly mottled with blackish. The only specimen I ever met with was a male, apparently adult, the testes large.

Hab. Bluefields, in Jamaica. Rare. Brit. Mus.

Genus *PLACOPSIS* ($\pi\lambda\acute{\alpha}\xi$, a broad plate, and $\delta\psi\iota\varsigma$, the face).

Nostril superior, above the eye-ridge, subapical. Toes dilated, unequal. Femoral pores none. Head lengthened, covered from the interparietal to the muzzle with large, angular, smooth plates, without any small scales: rostral plate erect; jaws even; rounded. Ventral scales imbricate, flat. Back and sides covered with smooth, oval, flat scales, not imbricate, separated by minute grains. Scales on each side of the goitre long-oval, loosely imbricate. Tail compressed, with a dentelated crest above; keels forming ridges beneath.

4. *Placopsis ocellata*. The Plate-headed Anolis. Head four-sided, flattened. Interparietal oblong, rounded behind, square in front. Ears small. Goitre very large. Nape slightly crested, only in adult. ♂. Length of body 3 inches, of tail $3\frac{3}{4}$ inches; total $6\frac{3}{4}$ inches. Ground colour delicate greenish white, crossed by interrupted and irregular bands of black, of which about four are situated on the body, and about eight on the tail; the latter

the more conspicuous and well-defined. Belly crossed by zigzag lines of reddish brown. Goitre dark crimson, with few white scales.

♀. The bands or spots are smaller and more irregular.

In the ♂, about an hour after the specimen was in my possession, the bands on the tail, which before were very vivid, had paled so as to be scarcely distinguishable. The ♀ in about the same time changed to a pale umber-brown, in which however the markings were still distinct.

Hab. St. Elizabeth's, and Westmoreland, in Jamaica. Rather rare. Brit. Mus.

Family GECKOTIDÆ.

5. *Sphærodactylus Argus*. The Eyed Palette-tip. Length $2\frac{1}{4}$ inches. Upper parts purplish brown, marked with dark ocelli, which have pale disks. On the head the ocelli have white disks, and are lengthened, so as to form about six longitudinal interrupted bands, reaching from the nose to behind the fore-legs: thence the spots are more obscure, irregularly scattered, and interspersed with black dots. Under parts grayish yellow, unspotted. Tail reddish brown above, with the ocelli in some specimens large and indistinct, in others small and beautifully clear, and in others almost obsolete: the under surface of the tail brick-red, unspotted. The scales are well-defined, and form a beautiful and regular network pattern, all over the body.

Hab. Jamaica. Common in houses, in corners, and crevices. Specimens in Brit. Mus.

This species bears a considerable resemblance to *S. punctatissimus* from Martinique; but that species is of a paler hue, has the lines on the head more numerous, and both these and the pale spots are simple, or destitute of dark outlines.

It appears to be *Salamandra minima, fusca, maculis albis notata* of Sloane (tab. 273. figs. 7, 8), but he calls it Wood-slave, a term which (in the leeward parts of the island at least) is appropriated to *Mabouya agilis*, and gives *Mabouya* as a synonym. And then, to make the confusion worse, he describes, somewhat indistinctly, indeed, the habits of *Thecadactylus lævis*.

6. *Sphærodactylus oxyrhinus*. The Sharp-nosed Palette-tip. Head narrow, muzzle lengthened, nose sharper than in the preceding. Length —? (about the same size as the preceding, but the specimen, being mutilated, could not be measured). Pale wood-brown above, uniformly covered with dark specks, generally confluent, so as to present a sinuous pattern. Under parts pale yellowish, lightly speckled on the throat and sides. Tail —? (this was wanting in the only specimen I ever obtained).

Hab. St. Elizabeth's, in Jamaica. Rare. Taken in a house. Brit. Mus.

This is a very distinct species. The description of *S. nigropunctatus* in Mr. Gray's 'Synopsis of the Reptiles in the British Museum,' might be applied to this, but a comparison of the specimens shows that they are not at all alike; *nigropunctatus* being much larger, of a deeper brown, with the specks scarcely discernible.

The trivial name is formed from $\acute{\omicron}\xi\upsilon\varsigma$, *sharp*, and $\rho\acute{\iota}\nu$, *the nose*.

XXXI.—*Chronological Exposition of the Periods of Vegetation and the different Floras which have successively occupied the surface of the Earth.* By M. ADOLPHE BRONGNIART.

[Concluded from p. 203.]

III. KINGDOM OF THE ANGIOSPERMS.

THE predominant character of this last transformation of the vegetation of the globe is the appearance of the angiospermous Dicotyledons, of those plants which at the present time constitute more than three-quarters of the vegetable creation of our epoch, and which appear to date their predominance from the origin of the tertiary formations. For a long time I imagined that these plants had not begun to present themselves until posterior to the chalk, with the first beds of the tertiary formations; but more recent researches have shown that the beds belonging to the cretaceous formation already present certain very positive examples.

The plants even extend back to the commencement of the cretaceous epoch; for it is certain that several well-determined species exist in the *Quadersandstein* and the *Planerkalk* of Germany, which appear to correspond to the *grès vert* of France or greensand of English geologists, although this formation has never displayed any of them in France and England, and presents only a few examples of Cycadeæ, Coniferæ and marine plants; but in the south of Sweden, at Kopingue in Scania, a few specimens of dicotyledonous leaves present themselves also associated with a species of Cycadea in beds which have been referred to the cretaceous glauconia or greensand; so that the cretaceous formation, taken as a whole, appears to constitute a first period of the reign of the Angiosperms, forming, so to speak, the transition between the vegetation of the secondary formations and that of the tertiaries, presenting, like the former, still a few Cycadeæ, like the latter, already a few angiospermous Dicotyledons, and thus precluding the considerable development of the latter plants in the following period. This period is, moreover, characterized by several Coniferæ peculiar to it, which appear very distinct from